

Claims 1 to 10 and 17 to 20 are present in the application. In the final Office action claims 1, 6, and 7 are allowed. Claims 2 to 5 and 8 to 10 are rejected under 35 USC 112, second paragraph, as being indefinite. Claims 17 to 20 are rejected under 35 USC 101 because the subject matter does not fall within one of the statutory categories.

The applicant acknowledges with appreciation the allowance of claims 1, 6 and 7. In the enclosed amendment the wording of claim 6 has been clarified to better comply with 35 USC 112, sixth paragraph.

The applicant respectfully traverses and objects to the rejection of claims 2 to 5 and 8 to 10 are being indefinite under 35 USC 112, second paragraph. The examiner has suggested “[t]he claims are so poorly written that their metes and bounds cannot be ascertained.” Claims 2 to 5 and 8 to 10 are recited in the means plus function format specifically permitted by 35 USC 112, sixth paragraph. Ascertaining metes and bounds is not a condition for search or examination by the Office. In accordance with the applicable provisions under 35 USC and the applicable rules under 37 CFR and the applicable Office practice and procedure under the MPEP, the examiner is obliged to search and examine all claims which comply with the statute, the rules and the practice. The criteria to be applied by the examiner is to consider the language of the claims, giving the broadest interpretation to the features recited, consistent with the ordinary meaning of such language and features, and particularly with regard to the written description provided by the applicant. According to 35 USC 112, sixth paragraph, a claim in the means plus function format “shall be construed to cover the corresponding structure, material, or acts, described in the specification and equivalents thereof.” Speculation by the Examiner as to “[t]he limitations … [of] terms or phrases” used in the claims is not permitted if such definition or meaning is presented in the written description.

It is applicant’s belief that claims 2 to 5, as presently recited, do not require an amendment to satisfy 35 USC 112, sixth paragraph. Claims 8 to 10 have been amended to satisfy the requirements of 35 USC 112, sixth paragraph.

Accordingly, the applicant request that the Examiner perform the search and examination of claims 2 to 5 and 8 to 10 in accordance with the applicable statute, rules and Office practice.

The applicant respectfully traverses and objects to the rejection of claims 17 to 20 are rejected under 35 USC 101 as failing to define subject matter within one of the statutory categories. There is no indication in the Office communication that the Examiner has considered or complied with the practice recited in Chapter 2106 and other parts of the MPEP. Claims 17 to 20 and new claim 21 are claims directed to a computer program code as an article of manufacture or as a program storage device having embodied therein method steps for carrying out the program code. Such claims explicitly have been and are explicitly considered to be statutory categories for at least four years as evidence by the grant in US 5,710,578 and the practice as recited in Chapter 2106 of the MPEP. Claims 17 to 20 have amended to essentially the format of the claims granted in US 5,710,578. New claim 21 is presented in essentially the format of the claims granted in US 5,710,578.

Accordingly, the applicant request that the Examiner perform the search and examination of claims 17 to 21 in accordance with the applicable statute, rule and Office practice.

Reconsideration of the application as amended is requested and after such reconsideration an official action of Notice of Allowability.

Respectfully submitted,

MULLER ET AL.

By



Jay L. Chaskin

Attorney for Applicant

Tel: 203-373-2867

Fax: 203-373-3991

Email: [jay.chaskin@corporate.ge.com](mailto:jay.chaskin@corporate.ge.com)

Amended claims 6, 8, 9, 10, 17, 18, 19 and 20:

6. A radiological imaging method, in which a compression element for an object is mounted on a radiological device having means for emission of an X-ray beam [,] and means for receiving the X-ray beam after the beam has crossed the object to be studied and means for calculation for controlling the means for emission and for processing data from the means for receiving, comprising the steps [of] for :

- a. placing the object between the means for receiving and the compression element;
- b. taking a first radiological image of the object; and
- c. processing the first radiological image in order to optimize image quality over a particular area defined by the compression element.

8. The method according to claim 6 comprising the steps [of] for :

- a. establishing a histogram of the image (real histogram);
- b. establishing a mathematical model of the image chain;
- c. determining parameters of the object by calibration;
- d. determining parameters for acquisition of the image;
- e. determining parameters of the means for receiving;
- f. determining parameters for positioning the device;
- g. using steps a to f to determine two gray level values, min\_gray and max\_gray, taken in the particular area and delimiting a useful gray area;
- h. eliminating the part below min\_gray and the part above max\_gray in the real histogram in order to obtain a limited histogram;
- i. applying a set of rules to the limited histogram in order to determine a WL brightness level; and
- j. obtaining a WW contrast from the WL brightness level and possibly from one or more parameters chosen by a user or fixed a priori.

9. The method according to claim 7 comprising the steps [of] for :
  - a. establishing a histogram of the image (real histogram);
  - b. establishing a mathematical model of the image chain;
  - c. determining parameters of the object by calibration;
  - d. determining parameters for acquisition of the image;
  - e. determining parameters of the means for receiving;
  - f. determining parameters for positioning the device;
  - g. using steps a to f to determine two gray level values, `min_gray` and `max_gray`, taken in the particular area and delimiting a useful gray area;
  - h. eliminating the part below `min_gray` and the part above `max_gray` in the real histogram in order to obtain a limited histogram;
  - i. applying a set of rules to the limited histogram in order to determine a WL brightness level; and
  - j. obtaining a WW contrast from the WL brightness level and possibly from one or more parameters chosen by a user or fixed a priori.

10. A radiological imaging process, in which an element having a given X-ray absorption is placed on the path of an X-ray beam of a radiological device, the radiological device comprising means for emission of the X-ray beam [,] and means for receiving the X-ray beam after the beam has crossed an object to be studied and means for calculation for controlling the means for emission and for processing data from the means for receiving, comprising the steps [of] for :
  - a. placing the object on the path of the X-ray beam;
  - b. taking a first radiological image of the object and;
  - c. processing the first radiological image in order to optimize image quality on a particular area defined by the element.

17. An article of manufacture comprising : [program code means for carrying out the steps of:]

- a. a computer useable medium having computer readable program code means embodied therein for taking a first radiological image by a device having means for emission of an X-ray beam [,] and means for receiving the X-ray beam after the beam has crossed an object to the studied, wherein the object being disposed between the means for emission and a means compression, and means for calculation for controlling the means for emission and means for processing data from the means for receiving; and
- b. the computer readable program code means processing the first radiological image [in order to optimize] for optimizing the image quality over a particular area defined by the means for compression.

18. The article of claim 17 wherein the computer readable program code means comprises program code for causing a coder for the means for compression to cooperate with means for recognition of the means for compression.

19. The article of claim 17 wherein the computer readable program code means comprises steps for:

- a. forming a real histogram of the image;
- b. establishing a mathematical model of the image chain;
- c. determining parameters of the object by calculation;
- d. determining parameters of the acquisition of the image;
- e. determining parameters of the means for receiving;
- f. determining parameters for positioning of the device;
- g. determining two gray levels values, min\_gray and max\_gray, taken in a particular area and delimiting a gray area;
- h. eliminating a part below min\_gray and a part above max\_gray in the histogram in order to obtain a limited histogram;
- i. applying a set of rules to the limited histogram in order to determine a WL brightness level; and

k. obtaining a WW contrast from the WL brightness level and possible from one or more parameters chosen by the user or fixed a priori.

20. The article of claim 17 wherein the article is a support capable of being read by a reading device for the computer readable program code means [stored] embodied therein.